

Amendments to the Claims

The "Listing of Claims" will replace all prior versions of the claims in the application.

Listing of Claims:

1. (Currently Amended) A printed wiring board, comprising:  
a first circuit conductor extending through at least a part of the printed wiring board;

a second circuit conductor extending through at least a part of the printed wiring board; and

a plurality of stacked innerlayer panels, wherein at least one of the innerlayer panels comprises:

at least one capacitor, comprising:

a first electrode formed from a foil and having a first electrode termination, wherein coupled to the first circuit conductor is coupled to the first electrode at the termination of the first electrode, and, wherein the first electrode termination is within a the footprint of the first electrode;

at least one dielectric layer comprising a high dielectric constant material disposed over the first electrode including an aperture formed therethrough; and

a second electrode formed over the first dielectric layer spaced from the first electrode and having a second electrode termination coupled to the second circuit conductor, wherein the second electrode, the first electrode, and the dielectric form a capacitor, and wherein the second circuit conductor is coupled to the second electrode termination is spaced a selected distance from the first electrode termination to reduce separation between terminations.

2. (Currently Amended) The printed wiring board of claim 1, wherein the first circuit conductor extends through the dielectric layer.

3. (Currently Amended) The printed wiring board of claim 2, wherein — the second electrode termination is within a the footprint of the second electrode; and the second circuit conductor extends through the aperture of the dielectric layer.

4. (Currently Amended) The printed wiring board of claim 2 1, wherein the capacitor of the at least one innerlayer comprising: panel is laminated to a laminate material disposed over the capacitor first and second electrodes and over the dielectric, wherein the first circuit conductor extends through the laminate material.

5. (Original) The printed wiring board of claim 4, wherein the second circuit conductor extends through the laminate material.

6. (Currently Amended) The printed wiring board of claim 2 1, the innerlayer capacitor further comprising:

a third electrode spaced from the second electrode by a two-layer dielectric and electrically connected to the first electrode, and wherein the first electrode, the second electrode, the dielectric, and the third electrode form a capacitor.

7. (Currently Amended) The printed wiring board of claim 1, wherein the first electrode has a first component side that contacts the dielectric layer, and a second side opposite to the first component side, and wherein the first circuit conductor extends from the second side of the first electrode.

8. (Currently Amended) The printed wiring board of claim 7, wherein the termination of the second electrode is within a the footprint of the second electrode.

9. (Currently Amended) The printed wiring board of claim 7, the innerlayer panel further comprising:

a laminate material disposed over the second side of the first electrode, wherein the first circuit conductor extends through the laminate material and the second circuit conductor extends through the laminate material.

10. (Currently Amended) The printed wiring board of claim 7, the innerlayer capacitor further comprising:

a third electrode spaced from the second electrode by a two-layer dielectric and electrically connected to the first electrode, and wherein the first electrode, the second electrode, the dielectric, and the third electrode form a capacitor.

11. (Currently Amended) A method of making a printed wiring board, comprising:

forming a plurality of stacked innerlayer panels, wherein forming at least one of the innerlayer panels comprises:

providing a metallic foil;

forming a dielectric layer comprising a high dielectric constant material over the metallic foil and including an aperture formed therethrough;

forming a first electrode from the metallic foil, the first electrode having a first electrode termination located within a the footprint of the first electrode; and

forming a second electrode over the dielectric layer, the second electrode having a second electrode termination, wherein the first electrode, the second electrode, and the dielectric form a capacitor, and wherein the second electrode termination is spaced a selected distance from the first electrode termination to reduce separation between terminations;

forming a first circuit conductor, wherein the first circuit conductor extends through at least a portion of the printed wiring board and contacts the first electrode termination; and

forming a second circuit conductor, wherein the second circuit conductor contacts the second electrode termination and extends through at least a portion of the printed wiring board.

12. (Currently Amended) The method of claim 11, wherein forming a dielectric comprises: forming a dielectric having a through-hole, the first circuit conductor extending extends through the through-hole aperture of the dielectric layer.

13. (Currently Amended) The method of claim 12, wherein:

the second electrode termination is within a the footprint of the second electrode; and

forming a the second circuit conductor comprises forming a conductive via that extends through the dielectric layer.

14. (Original) The method of claim 12, wherein forming the innerlayer panel comprises:
- forming a laminate material over the first and second electrodes and over the dielectric.
15. (Original) The method of claim 14, wherein:
- forming the first circuit conductor comprises forming a conductive via through the laminate material; and
- forming the second circuit conductor comprises forming a conductive via through the laminate material.
16. (Currently Amended) The method of claim 12, wherein forming the innerlayer panel comprises:
- forming a third electrode spaced from the second electrode by a two-layer dielectric and electrically connected to the first electrode, wherein the first electrode, the second electrode, the third electrode and the dielectric layer form a the capacitor.
17. (Original) The method of claim 12, wherein forming the innerlayer panel comprises:
- providing a laminate material; and
- laminating the metallic foil to the laminate material before forming the first electrode.
18. (Original) The method of claim 11, wherein the first electrode has a first component side that contacts the dielectric, and a second side opposite to the first side, wherein forming the first circuit conductor comprises:
- forming the first circuit conductor to extend from the second side of the first electrode.
19. (Original) The method of claim 18, wherein:
- the second electrode termination is within the footprint of the second electrode; and
- forming the innerlayer panel comprises forming a laminate material over the second side of the first electrode.

20. (Original) The method of claim 19, wherein:
- forming a first circuit conductor comprises forming a conductive via through the laminate material; and
- forming a second circuit conductor comprises forming a conductive via through the laminate material.

21. (Currently Amended) The method of claim 18, wherein forming the innerlayer panel comprises:

forming a third electrode spaced from the second electrode by a two-layer dielectric and electrically connected to the first electrode, wherein the first electrode, the second electrode, the third electrode and the dielectric form a the capacitor.

22. (Original) The method of claim 18, wherein forming the innerlayer panel comprises:

providing a laminate material; and

laminating the metallic foil to the laminate material before forming the first electrode.

23. (Original) The method of claim 11, wherein forming a plurality of stacked innerlayer panels comprises:

providing a specified number of innerlayer panels;

joining the innerlayer panels together;

forming a third circuit conductor through at least two of the joined innerlayer panels; and

incorporating the joined innerlayer panels into the printed wiring board.